

Serial No.: 10/054,477
Docket No.: R0052CIP
Amendment Dated June 9, 2005
Responsive to the Office Action dated March 11, 2005

Amendments to the Claims:

A complete listing of all claims is presented below.

- 5 1-83. (Canceled).
84. (New) A tissue dissector, comprising:
an elongated tubular body having a proximal end and a distal end and enclosing
endoscopic imaging fibers; and
10 a dissecting, viewing and dilating unit removably mounted on the tubular body
distal end, including:
 a transparent distal tip having tapered outer walls converging to a blunt end
for dissecting tissue, the tip being disposed on a distal end of the dilating unit to
dissect tissue and facilitate passage of the tubular body through tissue under
15 endoscopic visualization; and
 a dilating element having an exterior contour that gradually increases in
size in the proximal direction from a distal edge thereof until a maximum cross-
sectional dimension greater than the cross-sectional dimension of the distal end of
the tubular body, the dilating element then decreasing in size to a proximal edge,
20 the gradual size increase and decrease therefore facilitating atraumatic expansion
of tissue following dissection by the tapered distal tip.
- 25 85. (New) The tissue dissector of claim 84, further including a length of screw threads
positioned on an outer surface of the tubular body near the distal end thereof, and wherein the
dilating unit further comprises a threaded bore hole for engaging the length of screw threads and
mounting the dilating unit on the distal end of the tubular body.

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86. (Withdrawn) The tissue dissector of claim 84, further including at least one resilient member positioned on an outer surface of the tubular body near the distal end thereof, and wherein the dilating unit further comprises a mating recess for engaging the resilient member and mounting the dilating unit on the distal end of the tubular body in a snap-fit engagement.

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87. (Withdrawn) The tissue dissector of claim 84, further including a lever-actuated locking device formed on the tubular body and the dilating element including a mating pin and recess for mounting the dilating element on the distal end of the tubular body and enable easy removal.

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88. (New) The tissue dissector of claim 84, wherein the exterior contour of the dilating element is an oval-shape.

89. (New) The tissue dissector of claim 84, wherein the exterior contour of the dilating element is an olive-shape.

90. (New) The tissue dissector of claim 84, wherein the exterior contour of the dilating element includes peripheral faceted surfaces located distally with respect to the point of maximum cross-sectional dimension.

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91. (New) The tissue dissector of claim 90, wherein the peripheral faceted surfaces define ridges that facilitate dilation of tissue.

92. (New) The tissue dissector of claim 84, wherein the exterior contour of the dilating element includes axially-aligned ribs and flutes.

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93. (New) The tissue dissector of claim 84, wherein the cross-sectional dimension of the dilating element is at least two times larger than the cross-section sectional dimension of the distal end of the tubular body.

5 94. (New) The tissue dissector of claim 93, wherein the cross-sectional dimension of the dilating element is between 15-30 mm.

95. (New) The tissue dissector of claim 84, wherein the dilating element is compressible.

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96. (New) The tissue dissector of claim 84, wherein the tubular body is an endoscope.

97. (New) The tissue dissector of claim 84, wherein the tubular body is an endoscope body, the dissector further including a fitting near the proximal end adapted to couple to a viewing camera.

15 98. (New) The tissue dissector of claim 84, wherein the tubular body is a cannula having a lumen, the endoscopic imaging fibers being provided within an endoscope that fits within the cannula lumen and includes a fitting near its proximal end adapted to couple to a viewing camera.

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99. (New) A tissue dissector, comprising:

an elongated tubular body having a proximal end and a distal end and enclosing endoscopic imaging fibers;

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a transparent distal tip having tapered outer walls converging to a blunt end for dissecting tissue, the tip being disposed on the distal end of the tubular body to dissect

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tissue and facilitate passage of the tubular body through tissue under endoscopic visualization; and

a dilating element of fixed outer dimension removably mounted on the tubular body proximal to the distal tip, the dilating element having an exterior contour that gradually increases in size in the proximal direction from a distal edge thereof until a maximum cross-sectional dimension greater than the cross-sectional dimension of the distal end of the tubular body, the dilating element then gradually decreasing in size to a proximal edge, the gradual size increase and decrease therefore facilitating atraumatic expansion of tissue following dissection by the tapered distal tip.

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100. (New) The tissue dissector of claim 99, further including a length of screw threads positioned on an outer surface of the tubular body proximal to the distal tip, and wherein the dilating element further comprises a threaded bore hole for engaging the length of screw threads and removably positioning the dilating element on the tubular body.

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101. (Withdrawn) The tissue dissector of claim 99, further including at least one resilient member positioned on an outer surface of the tubular body near the distal end thereof, and wherein the dilating element further comprises a mating recess for engaging the resilient member and removably positioning the dilating element on the tubular body in a snap-fit engagement.

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102. (Withdrawn) The tissue dissector of claim 99, further including a lever-actuated locking device formed on the tubular body and the dilating unit including a mating pin and recess for mounting the dilating unit on the distal end of the tubular body and enable easy removal.

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103. (New) The tissue dissector of claim 99, wherein the distal tip and dilating element are formed as a single unit removably mounted on the tubular body.

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104. (New) The tissue dissector of claim 99, wherein the distal tip is removably mounted on a distal end of the dilating element.

5 105. (New) The tissue dissector of claim 99, wherein the exterior contour of the dilating element is an oval-shape.

106. (New) The tissue dissector of claim 99, wherein the exterior contour of the dilating element is an olive-shape.

10 107. (New) The tissue dissector of claim 99, wherein the exterior contour of the dilating element includes peripheral faceted surfaces located distally with respect to the point of maximum cross-sectional dimension.

15 108. (New) The tissue dissector of claim 107, wherein the peripheral faceted surfaces define ridges that facilitate dilation of tissue.

109. (New) The tissue dissector of claim 99, wherein the exterior contour of the dilating element includes axially-aligned ribs and flutes.

20 110. (New) The tissue dissector of claim 99, wherein the cross-sectional dimension of the dilating element is at least two times larger than the cross-section sectional dimension of the distal end of the tubular body.

25 111. (New) The tissue dissector of claim 110, wherein the cross-sectional dimension of the dilating element is between 15-30 mm.

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112. (New) The tissue dissector of claim 99, wherein the dilating element is compressible.

113. (New) The tissue dissector of claim 99, wherein the tubular body is an endoscope.

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114. (New) The tissue dissector of claim 99, wherein the tubular body comprises an endoscope body, the dissector further including a fitting near the proximal end adapted to couple to a viewing camera.

10 115. (New) The tissue dissector of claim 99, wherein the tubular body comprises a cannula having a lumen, the endoscopic imaging fibers being provided within an endoscope that fits within the cannula lumen and includes a fitting near its proximal end adapted to couple to a viewing camera.

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